

August

Ladder Safety

Back Safety/Proper Lifting

Heat Stress/Outdoor Activity

Hand Tools

LADDER SAFETY

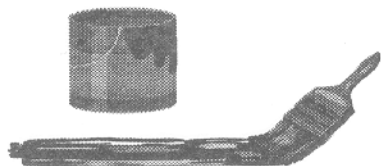
Fall clean up is well underway and falls involving ladders are all too common. Many of these accidents cause serious personal injury and even death. If you use a ladder at work or you are a do it yourself person around the house, here are several safety tips for either place:

- Before using a ladder, check to see that it is in safe repair. Make sure that the rungs, the side rails are in good condition, secure and there is no warp or twist in the shape.

- Never use a ladder made of metal, including aluminum, or with metal reinforcement for any electrical work. This includes changing a lightbulb.

- With a stepladder, make sure the spreaders are in good condition and operating correctly.

- Extension ladders should be checked for wear and damage to the ropes, pulleys, and locks.



- Never paint a wooden ladder. This can hide cracks and other defects. Use a clear finish or a wood preservative instead.

- Ensure the length of the ladder is sufficient and strong enough to support you and any tools and materials.

- Do not climb onto the top few rungs of ANY ladder.

- To set up a straight ladder, use the four to one rule. For every four feet in height, the base of the ladder should be one foot away from the wall. Place on solid, even, stable surface. Be sure the feet are skid-resistant.

- Have someone hold the base of the ladder, or tie or block it. Also have someone hold onto the ladder while you are tying it off at the top.

- Keep hands free to climb. Carry tools on a belt or hoist up after you climb. Wear non-slip footwear to climb. Maintain the right center of gravity and don't over reach.

- When moving a ladder, take extreme care to steer clear of any overhead electrical wires and/or power lines. Large ladders require at least two people to ensure the ladder does not fall or strike anyone or anything.

-Quarterly ladder inspections should be a part of every shop safety program.

Remember: Your climb up the ladder can be to success or personal injury depending on the condition of the ladder.



**By: Susie Ashby
Safety and Occupational
Health Specialist
Installation Safety Division**

DO'S AND DON'TS WHEN USING LADDERS

All ladders must be in good condition and of the proper length for the job at hand.

Wooden ladders are not to be painted with anything other than clear finish or linseed oil. All metal parts must be hot-dipped galvanized. (ANSI A14.2)

All stright ladders must be tied off, within three rungs of the top, or held. Stepladders higher than ten feet are not permitted. Personnel must not stand on the top and last step of any stepladder.

When climbing a ladder, personnel must face the ladder and keep both hands free for climbing. Where practical, grasp the ladder by the side rails, rather than the rungs.

Set stright ladders so that the bottom is out from the vertical about one-fourth of the distance from the upper support to the bottom.

All stright ladders must be provided with nonskid adjustable feet.

The area around the bottom of all ladders must be free from slippery substance and tripping hazards.

All wooden ladders must be stored according to Guidelines in ANSI A14.1

The top sections of extension ladders are not to be used by themselves. All extension ladders shall have one of the lower rungs of the upper section fastened securely to the adjacent rung of the lower section to prevent disengagement of the dogs.

All portable wooden ladders must conform to the requirement of ANSI A14.1 (This includes wooden stright ladders, extension ladders and stepladders)

Ladders are not to be used as planking or scaffold boards.

Unacceptable ladders shall be removed from use immediately.

Only one individual is permitted to climb a section of ladder at a time.

When performing work on a stright of extension ladder, a safety belt with attached lanyard must be worn.

LADDERS

Be sure your ladder's resting on a firm, skid proof base. When possible, have a second person steady it.

Don't overreach while on a ladder. It's easier and safer to climb down and move the ladder over a few feet.

Face the ladder and grip firmly with both hands while climbing either up or down. Don't try to climb too fast.

Be sure ladder rungs and your shoes are free of mud, grease, and oil.

Keep metal ladders away from wires and electrical connections to avoid the possibility of electrical shock.

Be sure to use the right length ladder for the job.

Be sure the ladder is in safe condition.

Don't Bet Your Life - Stop - Think - Be Safe

WORKING SAFELY WITH LADDERS

Step And Straight Ladder Guidelines

Most of us use ladders from time to time—at our worksites, in the office, or at home. Yet few of us stop to review the basic rules for working safely with ladders. The following safety guidelines can help anyone who works with ladders prevent accidental falls, injuries, and disability.

Step Ladders

When working on step ladders, remember never to climb past the second rung from the top. Make sure that the spreaders are functional and locked in place before climbing the ladder. If the ladder is positioned by a door or walkway, make sure that the door is locked or the walkway barricaded to prevent collisions. Do not overreach while working on a step-ladder—reposition the ladder to avoid leaning over the base of support.

Straight Ladders

When working on straight ladders, use the four-to-one rule: position the ladder base one foot away from the wall for every four feet of ladder height (up to the support point). Never climb past the third rung from the top on a straight ladder. A straight ladder should extend at least 3 feet past its support point. Tie down your ladder as close to the support point as possible. Make sure that straight ladders have safety feet. To avoid overreaching, do not let the trunk of your body extend past the side of the ladder.

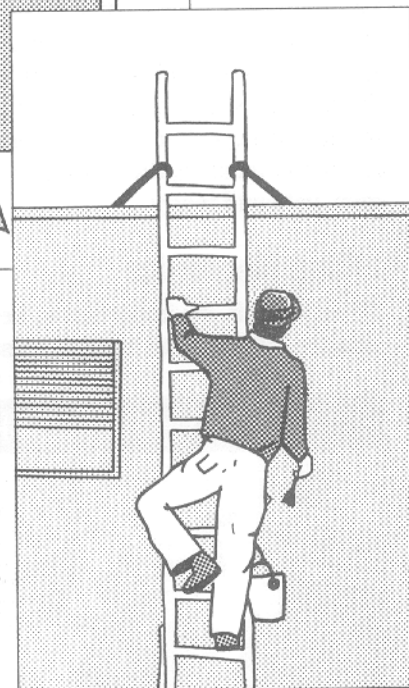
General Guidelines

Persons who work on ladders should wear slip-resistant footwear, and make sure that ladder rungs are free of oil, grease, or other slippery substances. Before climbing any ladder, check its condition. Are nuts and bolts tightened? Are rungs secure? Do spreaders work? Are safety feet functional? If the ladder is in good condition, climb and descend it facing the ladder itself, and holding on with both hands. If you must carry tools, use a tool belt or a bucket attached to a hand line to pull tools up and down. When working on ladders, hold onto the ladder with



If the ladder is positioned by a door or walkway, make sure that the door is locked or the walkway barricaded to prevent collisions.

A straight ladder should extend at least 3 feet past its support point. Tie down your ladder as close to the support point as possible.



one hand at all times. And remember, *never* use a metal ladder when working with electrical current.

Prevent A Fall

By using these tips for ladder safety, you can help prevent accidental falls, injuries, and disability. All of us use ladders from time to time, so ladder safety should be everyone's concern.

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THE MECHANICS OF LIFTING

How Your Back Works

You may know that back injuries are the most common type of industrial accident. That's because no matter what our jobs, we are constantly using our backs—to support our bodies, to bend, sit, twist, stand, even to lie down. All of these activities put stress on our backs, but at no time are our backs more vulnerable to injury than when we're lifting. Understanding how your back works while lifting can help you avoid unnecessary strain and potential injury.

Back Basics


Your back is made up of moveable bones (called vertebrae) and shock-absorbers (called discs) between each vertebra. These structures are supported by ligaments and muscles that help keep the back aligned in three balanced curves. (You know your back is aligned correctly when your ears, shoulders, and hips are in a straight line.) When your back's three curves are not in balance, there is a greater likelihood of both back pain and injury.

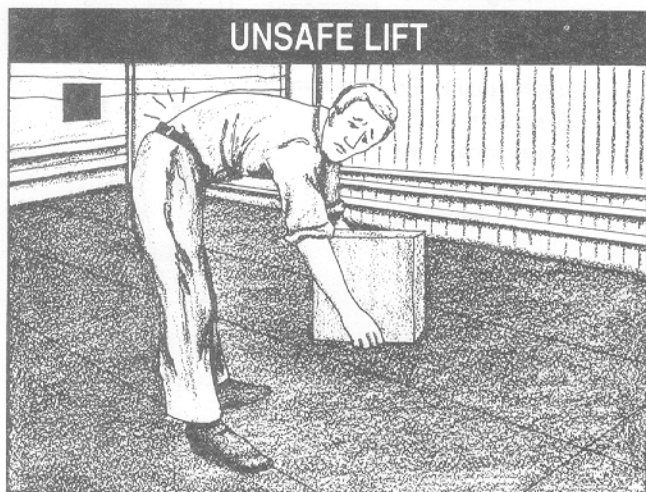
Lifting Mechanics

When you lift, it's important to keep your back in balance. If you bend at your waist and extend your

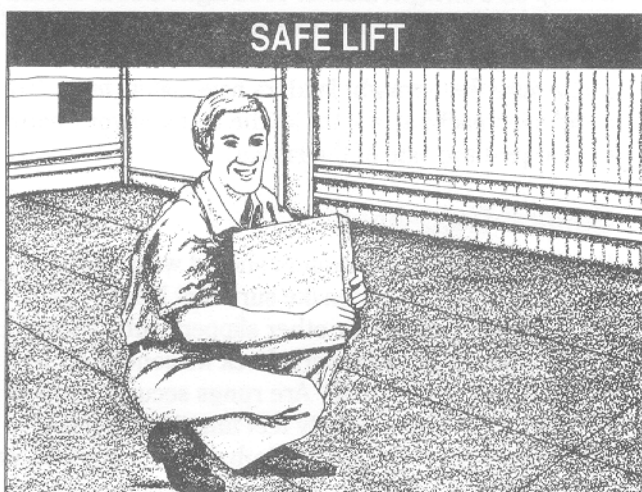
upper body to lift an object, you upset your back's alignment and your center of balance. You force your spine to support the weight of your body *and* the weight of the object you're lifting. This situation is called "overload." You can avoid overloading your back by using good lifting techniques. For example, when you bend at the knees and hug the object close to you as you lift, you keep your back in alignment and let the stronger muscles in your thighs do the actual "lifting." You do not have to extend your upper body and are able to maintain your center of balance.

Safe Lifting

Safe lifting means protecting your back (and yourself!) while you lift. Before you lift anything, think about the lift—Can you lift it alone? Do you need help? Is the load too big or too awkward? When you do lift, be sure to bend at your knees, hug the load close to your body, and raise yourself up with the strong muscles in your thighs. Remember never to twist while lifting—instead, move one foot at a time in the direction where you want to go and then turn with your leg muscles. Above all, safe lifting means keeping your back in balance and avoiding overload. When you know how your back works, it's easier to understand how you can protect it. 



If you bend at your waist and extend your upper body to lift an object, you upset your back's alignment and your center of balance.



If you bend at the knees and hug the object close to you, your back stays balanced and the muscles in your legs do the lifting.

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TO BRACE OR NOT TO BRACE, THAT IS THE QUESTION



Recently, supervisory remarks submitted on a DA Form 285, U.S. Army Accident Report, indicated a requirement for use of back braces/supports as required personal protective equipment. This is not a personal protective equipment requirement.

The Office of the Surgeon General (OTSG) has indicated current research shows no benefit of utilizing low back support in preventing injuries. Further, TECOM Safety supports the OTSG approach but recognizes the controversy over this issue.

Current information shows that psychophysical studies have shown wearing back support belts increases loads people are willing to lift by up to 20 percent, possibly giving workers a false sense of security. Additionally, research done at the

University of Alabama shows belt users had an average temporary increase of 15 in systolic blood pressure. That is an increase said to be of concern for someone with a predisposition to cardiac disorders. The possibility arises for someone suffering a stroke or heart attack from use of the belt.

This leaves the employer liable and open to possible citations by OSHA for willful noncompliance with the General Duty Clause if the back support belts are the sole method of back injury prevention. The mere use of back support belts could indicate that the employer knew of the presence of back injury risks but used inappropriate control measures. These belts are not the solution to back injury prevention, but rather a small part of a total ergonomics program to prevent occupational back injuries. To preclude the possibility of encountering such problems, organizations are encouraged to adopt a program that includes work-site analysis, hazard control, good engineering and ergonomic controls, medical management of physically demanding tasks, and training and education programs.

Therefore, it is recommended that the use of back braces/supports be a decision of each individual employee following medical evaluation and recommendation. Additionally, this could be the topic of upcoming organizational monthly safety meetings and documentation, in the form of minutes, forwarded to each organization's supporting safety office.

Further information is available through the Installation Safety Division at 278-4757.

By: Susie Ashby, Safety and Occupational Health Specialist

POSTURE PERFECT

Basic Tips For Back Health

It's true that good posture is a reflection of the way we look and feel about ourselves, but it's much more than that. Good posture is one of the simplest things each of us can do to help our backs stay healthy and pain-free. Good posture can prevent muscle pain, stiffness, and tension as well as back aches, pain, and injury.

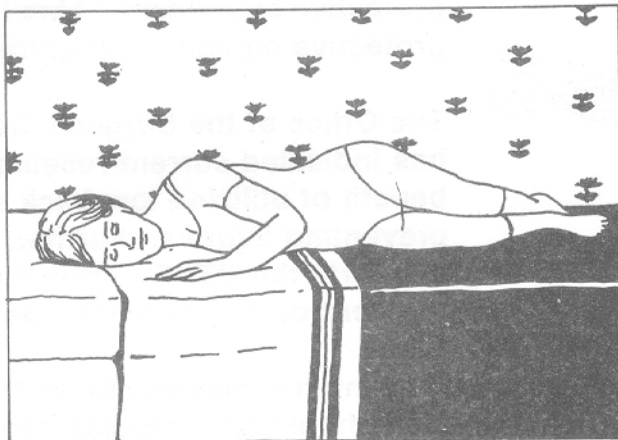
Good posture is actually quite simple. It means keeping the three natural curves of your back (neck, chest, and lower back) in balance while standing, sitting, or lying down.

Standing

Contrary to what most of us were taught, good posture does not mean standing with shoulders thrust back, chin forward, and spine straight as an arrow. Actually, you're using good standing posture when your ears, shoulders, hips, knees, and ankles are "stacked" in a straight line. (Note: Your shoulders should be relaxed and your knees slightly bent.)

Sitting

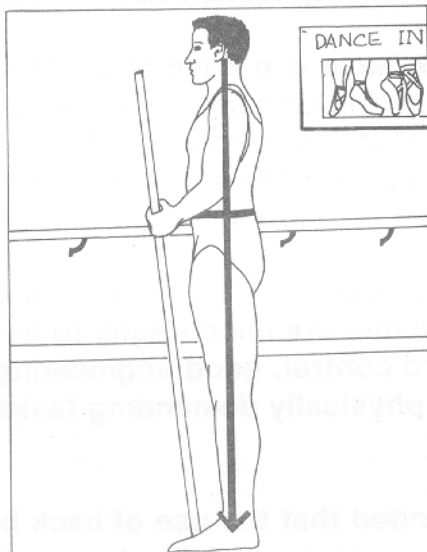
While sitting, you can keep your spine balanced by again "stacking" ears over shoulders and shoulders over hips. To prevent lower back strain, place a lumbar roll (or rolled-up towel or sweater) between your



When lying down, rest on your side in a modified "fetal" position (knees slightly bent toward chest).

lower back and the back of your chair. Keep your buttocks resting against the chair back, and if your feet don't reach the floor, rest them on a footstool or box.

While sitting, "stack" ears over shoulders and shoulders over hips. Use a rolled-up towel or sweater to support your lower back.



You're using good standing posture when your ears, shoulders, hips, knees, and ankles are "stacked" in a straight line.

Lying Down

When lying down or sleeping, try resting on your side in a modified "fetal" position (knees slightly bent toward chest) or on your back with a pillow placed beneath your knees. Sleeping with more than one pillow under your head can exaggerate your neck curve and can place undue stress on your back. Choose a firm mattress for adequate back support.

A Healthier Back

By using good posture throughout your day, you can help keep your back balanced and reduce your risk of back problems and injury. You'll not only feel better, you'll look better, too.



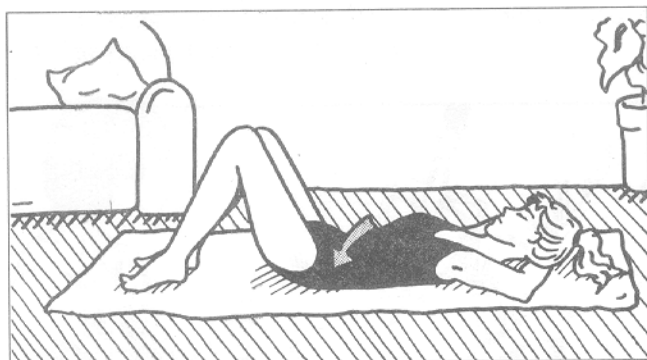
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BACK EXERCISES

Making Your Back Work For You

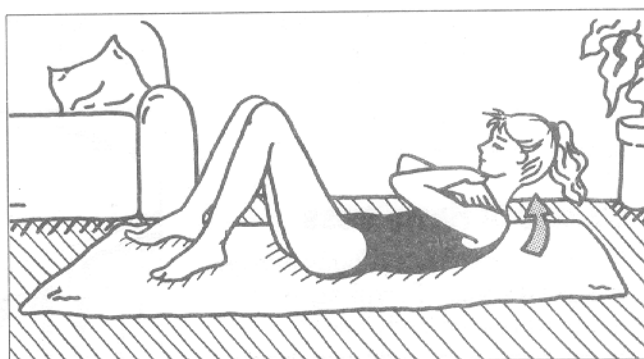
No matter what our jobs, all of us use our backs every day when we're sitting, standing, lifting, even lying down. A back injury can result in pain, disability, and even loss of income if it prevents us from doing our jobs. Together with proper lifting techniques, back exercises are one of the most important things each of

us can do to strengthen our backs and help protect them from accidental injury. The following exercises, when done on a daily basis, can help keep your back in condition. (Remember, though, if you are experiencing back pain of any sort, check with a healthcare professional before doing these or any exercises.)



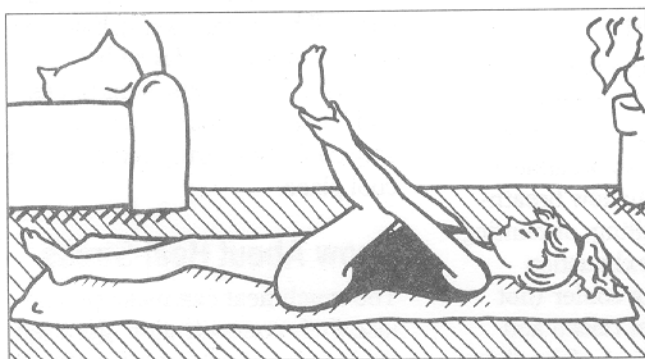
Pelvic Tilt

Lie as shown with knees bent and feet flat on the floor. Slowly tighten your stomach and buttocks as you press your lower back onto the floor. Hold for 10 seconds and then release. Repeat the sequence 5-10 times.



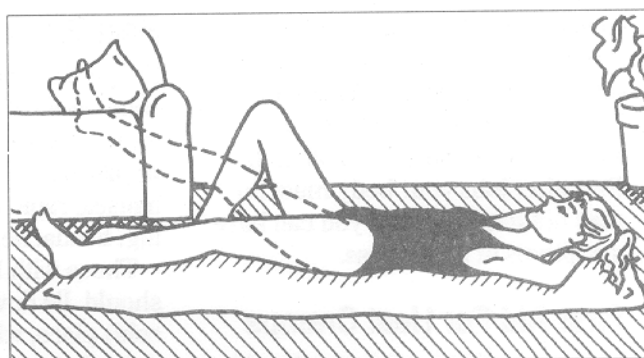
Bent-Knee Sit-Ups

Lie as shown with knees bent and feet and lower back on the floor. Place your arms as shown and slowly raise your shoulders, using your stomach muscles. (Do not stretch with your neck or arms.) Hold for 10 seconds. Relax. Repeat 5-10 times.



Hamstring Stretch

Lie on your back with one leg straight in front of you and the other bent. Hold onto the ankle of your bent leg and slowly try to straighten your leg. (Keep your lower back on the floor.) Hold for 10 seconds. Relax. Repeat 5-10 times, then switch sides.



Leg Lift

Lie on the floor with one leg straight in front of you and the other bent as shown. Slowly raise your straightened leg as far as you can. Hold for 10 seconds. Slowly lower your leg to the floor. Relax. Repeat 5-10 times, then switch sides.

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HEAT STRESS

You probably know how draining working or playing in too much heat can be. But if the heat and humidity are very high, there is a danger of heat cramps, heat exhaustion, or heat stroke. This is most likely to occur when the temperature is 90° F or more. First aid for heat cramps and exhaustion can make the person much more comfortable, and able to return to normal activities more quickly.

Causes of Heat Stress

You know that as your body moves, you get warmer. Perspiring is one of the ways your body has of cooling off. Your body also directs more of your blood to the surface of the skin, which is why your skin may look flushed when you're hot. Sometimes your body gets too hot. This is called heat stress. You may be working too hard, or not drinking enough water when it is very hot or humid. You may not be used to working in the heat. Or, the air may be very still, with no breeze or fan to help cool you. When your body overheats, it begins to pay most of its attention to cooling off. But other jobs your body must do may not get done, and you can have symptoms of heat stress.

First Aid For Heat Cramps

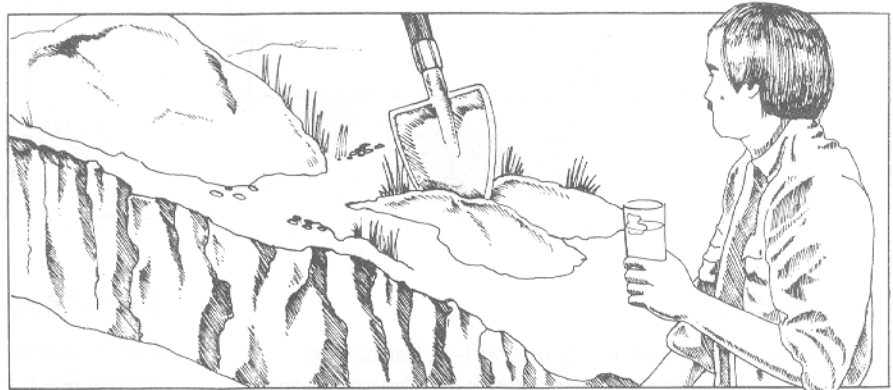
If you're working or playing hard in the heat, you can get cramps, pains, or spasms. Often they are in your arms, legs, or abdomen. You will probably be perspiring heavily. You can also get heat cramps from drinking too many cold liquids, or

by drinking them too quickly.

Massage or use firm pressure on the muscle that is cramping. Drink small sips of water with a little salt added (if you have a heart or blood pressure problem, drink plain water) to help cool your body. Move into the shade or a cooler (not cold) place.

Avoiding Heat Stress

It takes about 4-7 days to get used to unusual heat. If you know you'll be exposed to hot temperatures, spend more time each day in the heat for about a week before beginning your task. Always drink plenty of cool



Rest and drink cool water often when you are working in hot, humid weather.

First Aid For Heat Exhaustion

People with heat exhaustion have some or all of the following symptoms: sweating, clammy, flushed, or pale skin, dizziness, weakness, nausea, rapid and shallow breathing, headache, vomiting, or fainting.

Those with heat exhaustion should lie down in a cooler (not cold) place, with feet raised and tight clothing loosened. Give them sips of cool water, adding 1 teaspoon of salt per quart of water. (If they have heart or blood pressure problems, give plain water.) Call a doctor, especially if there is vomiting or fainting.

water when you're in the heat. You may not be thirsty, but your body can still be losing as much as three gallons of water a day in hot weather. Wear hats, sunglasses, and loose cotton fabrics to help you stay cool. Take frequent breaks in a cool place.

Know About Heat Stress

Too much heat can make people lose their concentration, get tired, or grouchy. Understanding how to deal with heat stress can help you avoid accidents and misunderstandings. Extreme heat can be bad for your health, so learning first aid for heat stress can be important to your health and well-being.



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HEAT STRESS

Under certain conditions, your body may have trouble regulating its temperature. As a result, your body overheats and suffers from some degree of heat stress. Whether mild, moderate, or severe, heat stress can come on suddenly and be dangerous to your health. If you are prepared, you can "keep your cool" and prevent heat related problems.



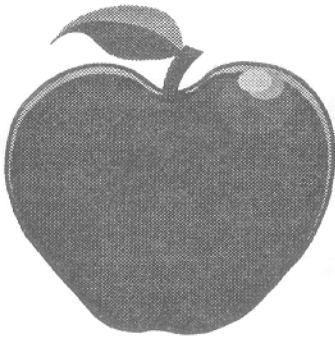
Hard work or play can overload your body with extra heat, especially if you are active in a hot, humid, or poorly ventilated environment. These conditions make it harder for your body to handle heat. The sweat pours out, you don't feel well or work well, and you may feel faint or dizzy. If these warning signs of heat stress go unrecognized and untreated, the physical strain may lead to heat disorders, disability, or even death.

Our bodies vary in their ability to handle heat. Everyone can learn to avoid the adverse health and safety effects of heat stress. Keep your cool by knowing your body and its limitations, by understanding heat stress, and by preventing stress in the first place. Take an active role to prevent heat problems by knowing the factors that increase your risk and take precautions to reduce them.

In addition to the medical hazards of bodily illness or injury caused by heat stress, there is also a higher frequency of accidents in hot environments. Conditions such as fogged glasses, sweat in the eyes, slippery hands, or dizziness and fainting are direct causes of accidents. Physical discomfort, irritability and anger, poor judgement, loss of concentration and slower mental and physical reactions contribute to indirect causes of accidents.

There are several steps you can take to prevent heat stress such as drinking more water. Thirst is not a good indicator of how much water your body needs. It's best to replenish throughout the day by drinking small amounts, and drinking more than is needed to satisfy your thirst. You may need rest breaks during your activities depending on conditions such as air temperature.

When possible, wear loose, lightweight clothing which encourages heat to be released. Acclimatization, adapting to the heat, takes about 7 to 10 days. Begin with short periods of exposure to the heat and gradually increase the amount of time spent in the heat. Stay in good shape. Heavy meals add heat to your body



and divert blood to your digestive system. Light meals during the workday will decrease your body heat. Be aware of special risks associated with alcohol, caffeine, age, recent illnesses, and medications such as those used to control high blood pressure or allergies.

Enjoy summer, do it right--plan ahead and play it safe. Stay in shape, eat light meals, dress appropriately, and know your personal limitations and intolerance to the "dog days of summer."

Susie Ashby
Installation Safety Division



PREVENTING HEAT STRESS

Keeping Cool In The Heat

Excess heat can place an abnormal stress on your body. When your body temperature rises even a few degrees above normal (which is about 98.6°F), you can experience muscle cramps, become weak, disoriented, and dangerously ill unless you can help your body to cool down. If your body temperature rises above 105°F, your condition can be fatal. Persons who work in hot environments—foundries, kitchens, laundries, and the like—must take special care against heat stress. The following guidelines can help you keep your cool in the heat and avoid the dangerous consequences of heat stress.

Adapt To The Heat

The National Institute for Occupational Safety and Health (NIOSH) suggests that all workers exposed to extreme heat gradually get used to their environment over a one-week period. This means that on your first day in a hot environment, you may only be able to do half the work that a fully-adapted worker would do. Each day, your workload increases slightly until you are able to operate at “full steam.”

Drink Water Frequently

Sweating is one of the ways your body cools itself down. Sweating results in water loss, and the only way to replace the loss (and help your body continue to cool itself) is to drink water frequently. Ideally, you should drink at least 8 ounces of water every 20-30 minutes while

working in hot environments.

Wear Personal Protective Equipment


Personal Protective Equipment (PPE) for hot environments can range from ordinary work clothes made from “breathable” fabrics to specially designed suits that are cooled by air, ice, and even portable air-conditioners. Check with your supervisor about the appropriate PPE for your specific task.

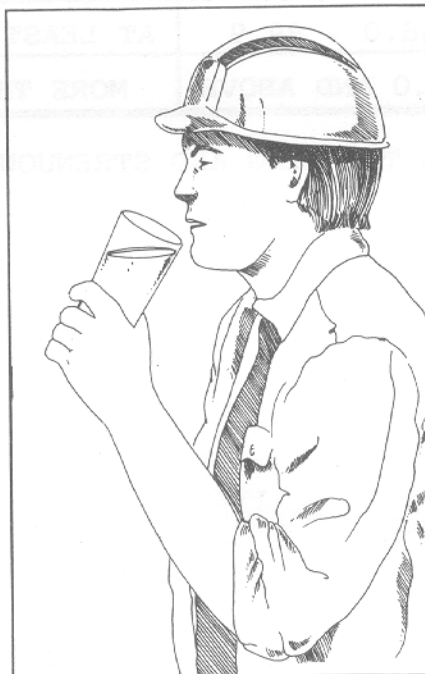
Use Engineering Controls

Your employer may also provide engineering controls such as fans, ventilators, exhaust systems, and

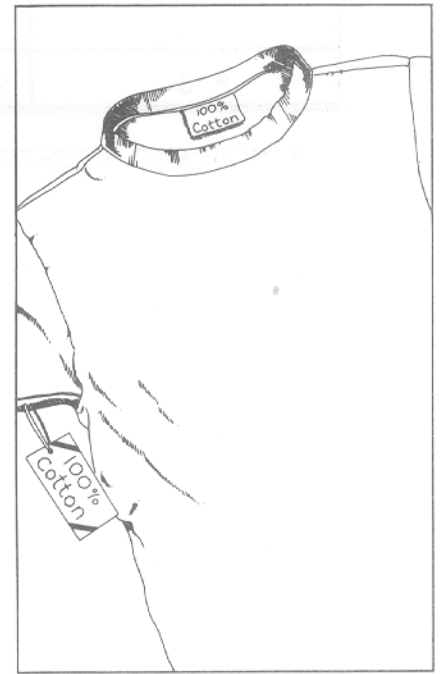
air-coolant or conditioning systems. These controls can help reduce worksite temperatures to more adaptable levels. Other controls such as using heat shields and insulating heat-producing machinery can also help lower the environmental temperature.

Keep Cool

Persons who work in hot environments should become familiar with first aid techniques for heat stress. If you or someone you know suffers from heat exhaustion, cramps, or other signs of heat stress, get medical attention immediately. Keep your cool—heat stress is dangerous, but it's also preventable. 



Drink at least 8 ounces of water every 20-30 minutes while working in hot environments.



PPE can range from work clothes made from “breathable” fabrics to specially designed “coolant” suits.

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WET BULB

CATEGORY	DEGREES F	WATER INTAKE QTS/HR	WORK/REST CYCLE MINUTES
1	78.0 - 81.9	AT LEAST 1/2	CONTINUOUS
2	82.0 - 84.9	AT LEAST 1/2	50/10
3	85.0 - 87.9	AT LEAST 1	45/15
4	88.0 - 89.9	AT LEAST 1 1/2	30/30
* 5	90.0 AND ABOVE	MORE THAN 2	20/40

* SUSPEND PHYSICAL TRAINING AND STRENUOUS ACTIVITY

FIVE MINUTE SUMMER SAFETY TALK HEAT INJURY

A. Adverse Effects of Heat Symptoms.

1. Heat Cramps - Muscle cramps of the abdomen, legs, or arms.
2. Heat Exhaustion - Profuse sweating with pale, moist, and cool skin; headache; weakness; loss of appetite; dizziness. May also have heat cramps, nausea, urge to defecate, chills, rapid breathing, tingling of the hands or feet, and confusion.
3. Heat Stroke - Headache, dizziness, stomach pains, confusion, weakness, may suddenly lose consciousness, and may have seizures; skin is hot and may be dry; pulse and respiration -are rapid and weak. Heat stroke is a medical emergency.

B. Basic Heat Injury Prevention.

1. Reduce heat injury by forcing water consumption.
2. When possible, provide cooled water (50°F to 60°F) to enhance its taste and increase voluntary water consumption.
3. Drink one (1) quart of water in the morning, at each meal, and before and during hard or strenuous work.
4. Take frequent small drinks of water since they are more effective than drinking a large amount of water all at once. Larger individuals need more water.
5. The use of salt tablets for replacement of salt lost through sweating is not recommended. An adequate salt intake is best achieved by eating three salt-seasoned meals per day.
6. When possible, schedule heavy workloads for the cooler hours of the day such as early morning or late evening.
7. Give frequent rest periods. Lower the work rate and workloads as the heat condition increases.
8. When possible, workloads and/or duration of physical exertion should be less during the first days of exposure to heat, then they should gradually increase to allow acclimatization.

Heat Illness Can Be Fatal!

Working in an excessively hot environment can be difficult — and even fatal. Heat can create a number of safety problems and illnesses, including heat cramps, heat exhaustion and heat stroke (which can be fatal). These illnesses caused by too much heat are called hyperthermia.

Heat can also cause you to become inattentive, short-tempered, dizzy and slow. All of these conditions can cause you to work in an unsafe manner.

Hot conditions can be caused by the weather or by the work situation itself, such as a laundry-room or a foundry. When the atmosphere is humid, the effects of the heat are compounded.

Here are the warning signals of heat illness:

Heat cramps affects muscles such as those in the arms, legs and abdomen — the muscles which have been used while working. These cramps may occur after work, when the person is resting. Heat cramps are a signal that the body has lost too much salt through sweating.

Heat exhaustion may have these symptoms: A feeling of exhaustion, nausea, dizziness, pale and clammy skin, quick pulse and low blood pressure. Heat exhaustion is also a warning that the mechanism which controls heat for the body has become seriously overtaxed. Heat stroke may follow if heat exhaustion is not treated.

Heat stroke is a serious matter and it can be fatal. It occurs when the body's heat control mechanism

simply shuts down. Perspiration stops and the body temperature rises. The heart pounds and the skin becomes flushed and hot. This condition is a medical emergency and must be treated immediately.

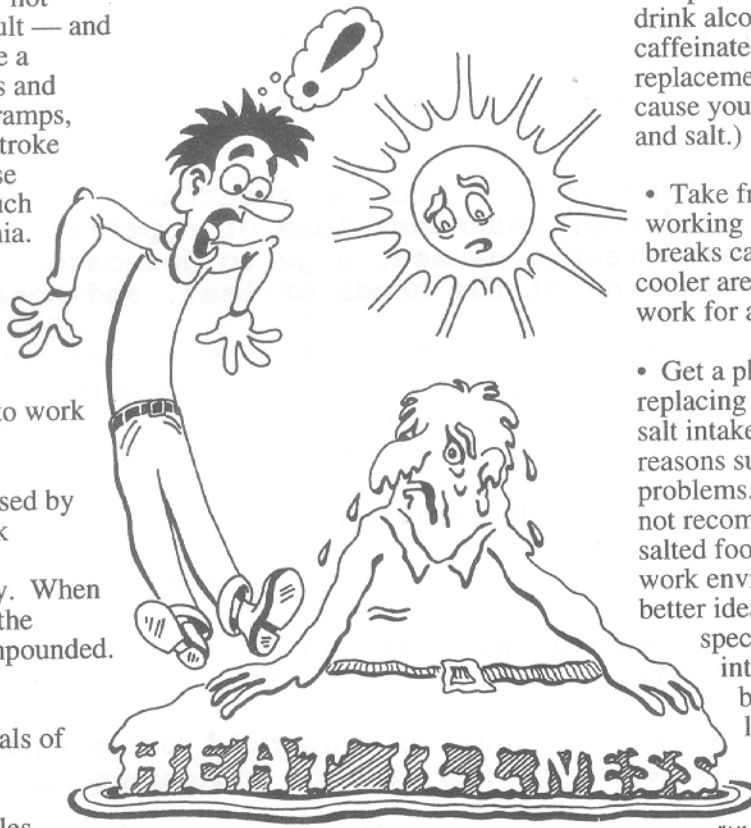
Here are some tips for preventing heat illness:

- Get used to working in the heat gradually. For example, if the weather suddenly turns hot or you are transferred to a hot environment, take it easy until you are accustomed to the temperature.
- Drink water often to avoid dehydration. The body loses water through perspiration, so you need

to replenish it frequently. (Do not drink alcoholic beverages or caffeinated beverages for fluid replacement because they will cause you to lose even more water and salt.)

- Take frequent rest breaks when working in hot conditions. These breaks can consist of moving to a cooler area or switching to lighter work for awhile.
- Get a physician's advice before replacing salt, particularly if your salt intake is restricted for medical reasons such as circulatory problems. The use of salt tablets is not recommended. Eating lightly salted food — before entering the work environment — may be a better idea. Also available are special drinks which are intended to replace the body's fluid and mineral levels.
- Eat meals which are cool and light when working in a hot environment. Save a heavy hot meal until later.
- Also dress lightly, in layers so that you can subtract or add clothing as the temperature changes. Be sure to shade the skin against the sun.

It is important that you remain alert to the signs of heat illness in yourself and in your co-workers. If signs of heat illness develop, move the victim to a cool place and cool him or her by fanning or soaking him with cool water. If he is conscious, give him water to drink. If you have any reason to suspect that the person may be suffering from heat stroke, call for medical help immediately.



SKATEBOARD SAFETY

Skateboarding can be fun for kids of all ages, but it can also be dangerous if you skimp on safety. The following guidelines can help anyone use a skateboard safely. First, select the right equipment for your age, size, and environment. Second, be sure to use personal protective devices (helmets, knee and elbow pads, gloves, and goggles) each time you get on your board. And third, skate only in areas designated for skateboarding, never on sidewalks or busy streets.



Skateboards are made up of three parts--the deck (the actual board piece), the trucks (the mechanism to which the wheels are attached), and the wheels. Decks range in size from about 30" to 36" long. A shorter deck is best for beginners, since it is easier to balance and handle. The wider the trucks, the better your base of support. For beginners, wide, soft wheels offer maximum traction.

An approved impact-resistant helmet is a must for all skateboarders, whether you are just beginning or have been skating for years. Skateboarding helmets should have adjustable chin straps to keep the helmet securely on your head in the event of a fall. Knee and elbow pads can help protect against bumps and abrasions, and gloves with padded palms can help protect against hand and wrist injuries. Goggles are also a good idea to prevent wind and/or flying particles from obscuring your vision. If you wear glasses, ask for goggles that can be worn over your regular glasses.

Many communities now have actual skateboarding parks equipped with professionally designed "bowls" and "ramps". Others allow skateboarding in designated areas of local parks and playgrounds. Most cities do not allow skateboarding on public sidewalks because of the increasing collisions with pedestrians. And, while skating in the street is not recommended, if you must "street-skate", be sure to follow traffic rules and regulations. Never skate through intersections, and try to avoid heavily traveled roads. Even parked cars can be dangerous when a car door is suddenly opened and sends you and your skateboard flying.

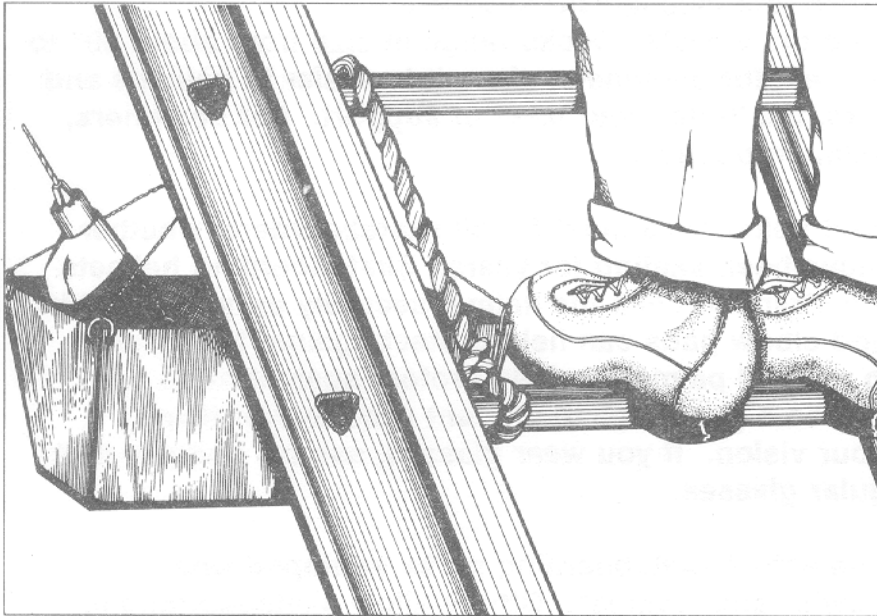
By using the right skateboard and protective equipment in the right place, you can start to skate safely at any age. Pick your deck, put on your helmet, and you will be "thrashing" in no time.

Susie Ashby
Installation Safety Division

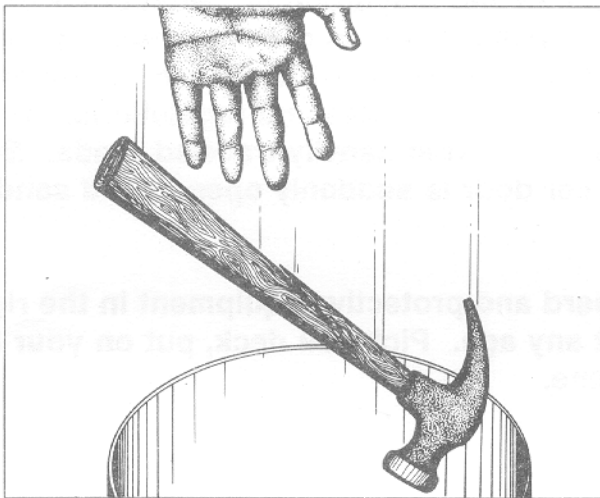
BASIC RULES FOR HAND TOOLS

Safety Tips For Hand Tool Users

Almost all of us use hand tools—at work and at home. It's estimated that about 8% of industrial accidents involve the unsafe use of hand tools (both manual and power). These accidents result from using the wrong tool for the job (or using the right tool incorrectly), failing to wear personal protective equipment, or failing to follow approved safety guidelines. The following checklist provides some basic rules for the safe use of hand tools. Take a moment to review this list, and use the tips here whenever you use a hand tool—on or off the job.



When working on ladders or scaffolding, secure yourself and your tools.



Inspect tools before each use and replace or repair if worn or damaged.

Hand Tool Rules

- ☐ Know the purpose of each tool in your toolbox, and use each for the specific task it was designed to do.
- ☐ Never use any tool—hand or power—unless you are trained to do so.
- ☐ Inspect tools before each use and replace or repair if worn or damaged.
- ☐ Clean tools after every use.
- ☐ Keep cutting edges sharp.
- ☐ Never test a cutting edge with your fingers—test on scrap material instead.
- ☐ Select the right *size* tool for the job—don't use cheaters.
- ☐ When working on ladders or scaffolding, be sure that you *and* your tools are secure. (A falling tool can seriously injure a coworker or bystander.)
- ☐ Carry tools correctly—never put sharp or pointed tools in your pockets.
- ☐ When hand-carrying tools, point cutting edges away from you, toward the ground.
- ☐ Lightly oil metal tools and store in clean, dry place to prevent rust.
- ☐ Wear Personal Protective Equipment (PPE), such as safety goggles, face shields, gloves, etc. as required.

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HAND TOOLS

It Wouldn't be difficult to prevent hand tool accidents if every individual who uses hand tools would remember - and follow - just four simple rules:

1. Select the proper tool for the job
2. Be sure it's in good condition
3. Use it correctly
4. Put tools away in their proper places

Even a good tool must be used properly. Here are some precautions to remember when you use some of the most common tools.

HAND SAW

Saws must be sharp with teeth properly set and clean. Be careful when you use your thumb as a guide to start the cut.

RAKES AND SHOVELS

Hoes, rakes and shovels must have good handles. When you are not using these tools, stand them upright against a building or fence in plain view, with the teeth or blade up.

CHISELS

Have a mushroomed chisel head dressed before you use the chisel and be sure to wear proper eye protection. Don't hold a cold chisel in your hands when it's being struck by someone else. It's safer to use a chisel bar holder.

WRENCHES

Discard worn wrenches with jaws that won't hold. Be sure that adjusting screws are free of rust and place the wrench on the nut in the direction the handle is to move. Never use a wrench as a hammer.

FILES

Never use a file as a pry, and never use a file without a handle. Keep the file clean to reduce the slipping hazard.

SCREW DRIVERS

Never use a screw driver in place of a pry bar or chisel. Be sure the handle is not split or splintered. Use a screw driver that fits the screw. Have the point dressed if it's bent, worn or broken. Use an insulated handle on all electrical work.

HAND TOOLS (CONTINUED)

HAMMERS

Be sure your hammer has a securely wedged handle suited to the type of head, and watch out for splinters. Remember that carpenter or claw hammers are designed for driving and drawing nails. They should never be used to strike cold chisels or other hardened steel tools because the heads are so tempered that they may chip and cause serious injury.

During the day, keep tools not in use out of the way so they won't become tripping hazards.

Remember these four rules about tools:

1. Use the right tool for the job
2. Don't use a defective tool
3. Use the tool for the purpose intended and in the correct manner
4. Put tools away in their proper places

Consider the Safety of the Individual Next to You

CARE OF HAND TOOLS

Hand tools are used every day on a construction site. They are used so often and so much that the proper care is many times forgotten. As we list some important points on proper care of hand tools, please refresh your memory concerning these points.

Proper Care Of Tools

1. Take good care of tools. Use tools carefully and you will have less need for a first-aid kit.
2. Keep tools clean. Protect them against damage from corrosion. Dip tools occasionally in cleaning fluids or solvents and wipe them clean. Lubricate adjustable and moving parts to prevent wear and misalignment.
3. Keep cutting edges sharp. Sharp tools are much safer than dull ones.
4. When sharpening, redressing or repairing tools, sharpen, grind, hone, file, fit and set them properly, using tools suited for the purpose.
5. For sharpening tools, either an oil stone or a grind stone is preferred.
6. Tools which are struck by hammers, such as chisels or punches, should have the head ground periodically to prevent mushrooming.
7. When tools are not in use keep them in suitable boxes, racks or trays. Put them down carefully and in an orderly manner on work benches, with putting edges away from you.
8. Place tools so they cannot fall and where no one can strike against or trip over them. Tools should not be placed on elevated benches, tables or platforms where they can roll or be kicked or knocked off.
9. When carrying tools protect the cutting edges and carry the tools in such a way that you will not endanger yourself or others.
10. Carry pointed or sharp-edged tools in pouches or holsters.
11. Refit or replace loose or split handles. Do not rely on friction tape to secure split handles.
12. Keep handles wedged tightly in the heads of all tools. Keep them smooth and free of rough or jagged surfaces.

AVOIDING HAND TOOL INJURIES

Hand tools have been with us probably as long as the use of fire has. And like fire, hand tools cause their share of injuries to users.

Causes of hand tool injuries can often be traced to some type of improper use of a hand tool -- be it manual or some type of power tool (electrical, hydraulic, gasoline, powder, etc.)

Some ways to avoid hand tool injuries are:

- Use the right tool for the job. Some examples of misuse of tools are using a wrench as a hammer, pliers as a wrench, and a claw hammer as a ball peen hammer.

- Keep tools in good condition. Broken or worn tools (wrenches with cracked or worn jaws, electric tools with broken plugs, etc.) should be repaired or discarded.

- Use tools in the way they were intended to be used (e.g., instruct users to cut away from the body when using knives, ground all electric tools that are required to be grounded, etc.)

- Keep tools in a safe place. Many accidents have been caused by tools falling from over head, and by sharp tools carried in pockets or left in toolboxes with the cutting edges exposed.

WRENCHES

The main parts of a wrench are: a handle for leverage, and a head with fixed or adjustable jaws. The purpose of a wrench is to grip, twist, or turn things like a pipe or the head of a bolt. There are dozens of kinds and sizes of wrenches, some of them pretty special, but all wrenches are for gripping, twisting, or turning things. There are a few ideas for using wrenches safely.

1. If you try to work with a damaged wrench, you may work yourself into an accident. Replace a damaged wrench. This will cost less than an accident.
2. A makeshift wrench, like any makeshift hand tool, may fail to do the job you want done. This is another way to work yourself into an accident. Use the right kind and size wrench for the job.
3. If you use a wrench improperly, the wrench may slip, break or spread. When this happens, you may be in for an accident. For example: striking a wrench with a hammer or sledge will damage the wrench. Using a pipe extension on the handle will put more leverage on the jaws and the extra leverage may damage or break the wrench. Use a wrench to do the kind of work for which it is designed. If a part is rusted or too tight to remove with normal wrench leverage, check up on other ways to remove the part.
4. An adjustable wrench has more parts than a wrench with fixed jaws. Inspect the knurl, the knurl pin and the adjustable jaw regularly. Replace these parts, if necessary, to maintain the wrench slip-free.
5. A pipe wrench grips best when the teeth are kept clean and sharp. It is designed to turning pipe. A pipe wrench will cut nuts and bolt heads; it may cut the corners off, and slip off. For your safety, use a pipe wrench only for turning pipe - and then make sure the bite is near the middle of the jaws. This means the right size pipe wrench for the size of pipe.
6. Your position and the position of your hands is important for your safety when applying a wrench. Your position should protect you from falling or from striking something if the wrench slips. Your hands should not be in position to get caught between the wrench handle and something else if the wrench slips or if the part you are working loosens or breaks.
7. An adjustable wrench works best if the open jaws face in the direction the handle is to be pulled or pushed.
8. Using a wrench on moving machinery is asking for real trouble if the wrench or a part falls into the machine. Stop and lock it out before performing maintenance.
9. Using a shim to make a wrench "fit" is another way to get hurt. Get a wrench that fits.

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